APPENDIX XII: Excel Worksheet Threats Analysis Scoring/Ranking

Use to rank all threats to targets, except Rural Amenities & Ecological Services (which were determined based on voting in the June workshop and input manually.

Scoring Worksheet: Stress Ranking

Each stress is ranked Very High, High, Medium or Low. The rank of each stress is typically a combination of the Severity ranking for the stress and and Scope ranking for the stress The stress rank is calculated automatically from the matrix below; for example, if the Scope of the stress is Very High and the Severity of the stress is Medium the overall rank of the stress is Medium.
Users can directly enter an alternative stress rank in the "User Override" cells.

Scoring Worksheet: Threat (Source-Stress Combination) Ranking

Source Ranking
Each source is ranked Very High, High, Medium or Low. A source rank is a combination of the Contribution ranking for the source and the Irreversibility ranking for the source. The source rank is calculated automatically from the first matrix below; for example, if the Irreversibility of the source is Very High and the Contribution of the source is Medium the overall rank of the source is High. Users can directly enter an alternative source rank in the "Override" cells.

Threat (Source-Stress Combination) Ranking
The source rank calculated from the first matrix below is combined with the stress rank (which was calculated from the matrix above.) This combination is done in the threat matrix. There is no user override option for the result of the below matrix.

Scoring Worksheet: Threat-to-System Ranking - Threat Summary at the Target Level

The Threat-to-System rank is the summary ranking for all threats associated with a particular source of stress to a conservation target. It summarizes the individual threat ranks shown in each stress column. The Threat-to-System rank is found in the far right column of the "Threats - Sources of Stress" table in the Stress,Sources worksheets.

The Threat-to-System rank is at least the highest rank given to any threat associated with a particular source of stress. Thus, if any one of the threats associated with a source of stress is ranked Very High within a target, the Threat-to-System rank for that source line will be Very High.

If there are multiple threats related to the same source of stress, the Threat-to-System rank may be adjusted upwards by using the "3-5-7" rule as follows:
    Three High rankings equal a Very High.
    Five Medium rankings equal a High.
    Seven Low rankings equal a Medium.

Using this rule, multiple threat ranks are consolidated into new aggregate threat ranks for each source of stress. In some cases, additional consolidation of the aggregate threat ranks with the remaining threat ranks may be needed to yield the final Threat-to-System Rank. For example, assume you have the following threats associated with the same source of stress: two High rankings and five Medium rankings across the seven stress columns. The five Medium rankings equal one High ranking. This High rank would be added to the two other High rankings to yield a Threat-to-System rank of Very High.   The computation is therefore: 2H + 5M = 3H =1VH

Scoring Worksheet: Overall Threat Ranking - Threat Summary ACROSS ALL TARGETS

Overall Threat ranks are determined by combining Threat-to-System ranks across all System/Targets affected by that threat. The Overall Threat rank is found in the next-to-last column of the "Summary of Threats for All Systems" table in the "Summary" worksheet.

The Overall Threat rank is determined by the "2 Prime" rule which is as follows:

Two Very High threat rankings yield an Overall Threat Rank of Very High
One Very High or Two High threat rankings yield an Overall Threat Rank of High
One High or Two Medium threat rankings yield an Overall Threat Rank of Medium
Less than Two Medium threat rankings yield an Overall Threat Rank of Low.

As in the Threat-to-System ranking, multiple threat ranks are first aggregated using the "3-5-7" rule prior to calculation of the Overall Threat Rank. Thus, three High threat ranks equal one Very High threat rank, five Medium threat ranks equal one High threat rank, and seven Low threat ranks equal one Medium threat rank.

For example, assume that a threat (labeled by its source of stress) has three High rankings and five Medium rankings across the eight target columns. The five Medium rankings equal one High ranking, thus equating to four High rankings. Since three High rankings equal a Very High rank, this equates to one Very High and one High. Under the "2 Prime" rule a Very High Overall Threat Rank requires two Very High's, so the Overall Threat Rank would be only High.

Scoring Worksheet: Threat Status FOR THE ENTIRE CONSERVATION PROJECT

The Threat Status for the Project is determined using the "2 Prime" rule explained above in the Overall Threat Ranking. It is based on the ranking of the eight highest Overall Threats (sometimes adjusted by the "majority rank override" rule explained below). The Threat Status for a Site is found in the lower right corner of the "Summary of Active Threats" table in the "Summary" worksheet.

Summary ranks are also provided for each Conservation Target in the bottom row of the "Summary of Active Threats" table. These ranks are provided to characterize the overall threat status for each target. The ranks are determined using the "2 Prime" rule explained above in the Overall Threat Ranking. These ranks, however, are NOT used to calculate the overall Threat Status for the Site, which is calculated from the ranks in the Overall Threat Rank column.

Scoring Worksheet: Rules for the Threat Status for a project

There are two rules governing the determination of the Threat Status for a Project Rank:
1. "2 Prime" Rule
2. Majority Rank Override Rule

"2 Prime" Rule
The threat status for a project rank is determined by a "2 Prime" rule as follows:
   Two Very High threat rankings yield a Very High rank for the Project.
   One Very High or Two High threat rankings yield a High rank for the Project.
   One High or Two Medium threat rankings yield a Medium rank for the Project.
   Less than Two Medium threat rankings yield a Low rank for the Project.

As in the Threat-to-System and the Critical Threat ranking, three High threat ranks equal one Very High threat rank, five Medium threat ranks equal one High threat rank, and seven Low threat ranks equal one Medium threat rank.

For example, assume that a project has three High rankings and five Medium rankings as its eight highest threats. The five Medium rankings equal one High ranking, thus equating to four High rankings. Since three High rankings equal a Very High rank, this equates to one Very High and one High. Under the "2 Prime" rule a Very High rank for the Project requires two Very High's, so the project rank would be only High.

Majority Rank Override Rule

The "2 Prime" rule is more sensitive to threats that affect multiple targets within a project than it is to threats that affect only one target. Unfortunately, in cases where targets are threatened by multiple unrelated threats, the Threat Status of a project may not be ranked high enough. For example, assume a project had targets A, B, and C that were threatened independently at a "Very High" level by threats X, Y, and Z. Under the "2 Prime" rule the Critical Threat rank of each threat would be "High" and, using the "2 Prime" rule again, the three High ranks would yield a High Threat Status for the project.

To adjust ranks upward in cases such as the example above, the "majority rank override" rule would kick in. This rule states that if a majority (more than 50%) of the targets within a project have a Very High (or High, or Medium...) threat to their system, then the Threat Status of the project would be Very High (or High, or Medium...).

Occasionally, the "2 Prime" rule yields a higher rank than the "majority rank override" rule. The matrix ensures that in all cases, the higher rank is selected.